Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

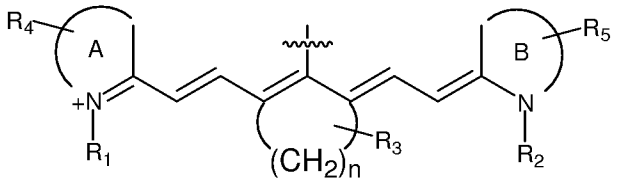
1. (Original) A fluorescent reporter compound of the formula:

wherein

Z is a nucleotide ;

L is a linker of sufficient length to connect the nucleotide derivative to the cyanine dye, such that the cyanine dye does not significantly interfere with the overall binding and recognition of the nucleotide derivative by a nucleic acid replication enzyme; and

Cy is a cyanine dye of the formula:



wherein

A and B are each independently the atoms necessary to form a cyanine nuclei;

R_1 and R_2 are each independently C_1-C_6 alkyl;

R_3 is hydrogen, or C_1-C_4 alkyl;

R_4 and R_5 are each independently selected from the group consisting of H and

SO_3^-; and

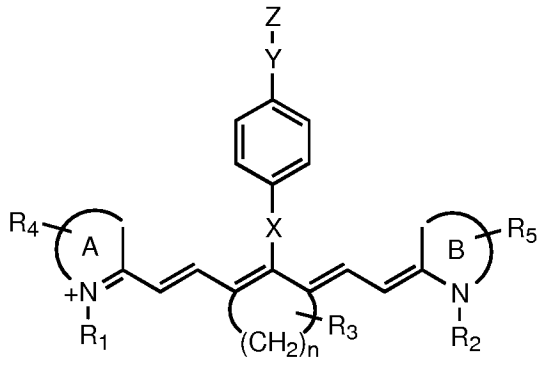
n is 2, 3, or 4.

2. (Original) A compound according to Claim 1 wherein R_4 and R_5 are both SO_3^-.

3. (Original) A compound according to Claim 1 wherein R_1 and R_2 are both C_1-C_4 alkyl.

4. (Original) A compound according to Claim 1 wherein R_1 and R_2 are identical.

5. (Original) A compound according to Claim 1 of the formula:



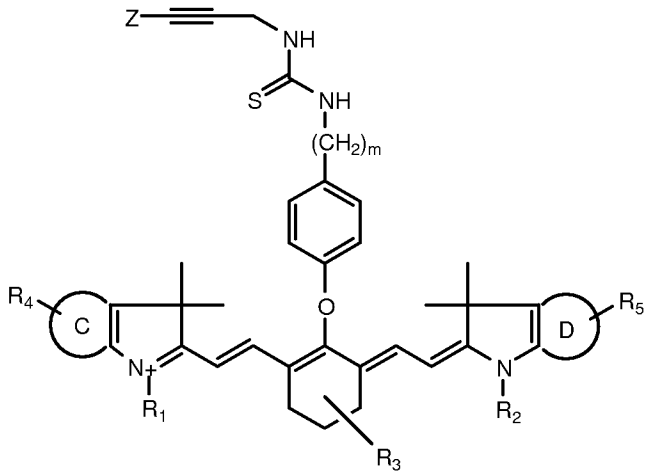
wherein

X is O, S, NR_9, or CR_9R_{10};

R_9 and R_{10} are each independently H or C_1-C_4 alkyl; and

Y is a diradical moiety having 3 to 20 atoms, at least three of which include an alkynyl group and one or more heteroatoms.

6. (Original) A compound according to Claim 1 of the formula:



wherein:

C and D represent ring structures with sufficient carbon atoms to make up a benzene or naphthalene ring; and

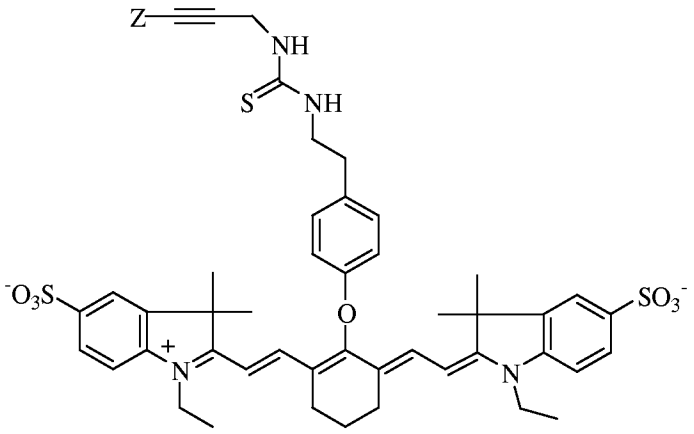
m is an integer from 1 to 6.

7. (Original) A compound according to Claim 6 wherein R_4 and R_5 are both SO_3^-.

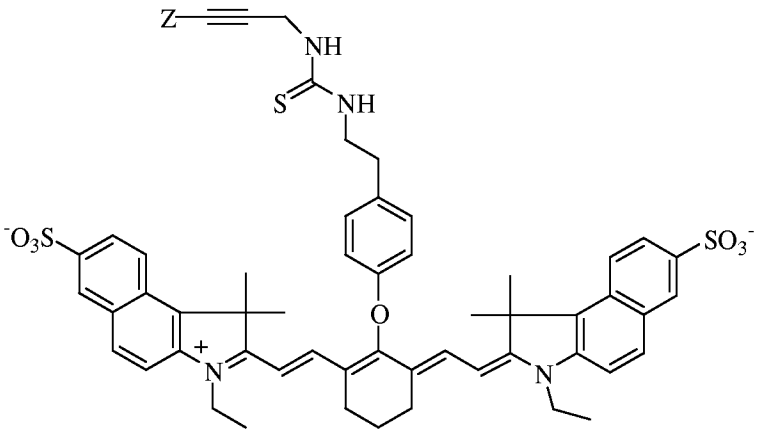
8. (Original) A compound according to Claim 6 wherein R_1 and R_2 are both C_1-C_4 alkyl.

9. (Original) A compound according to Claim 8 wherein R_1 and R_2 are identical.

10. (Original) A compound according to Claim 1 of the formula:



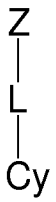
11. (Original) A compound according to Claim 1 of the formula:



12. (Original) A compound according to Claim 1 having a fluorescence maxima

greater than 750 nm as measured in an aqueous solution.

13. (Original) A fluorescent reporter compound of the formula:

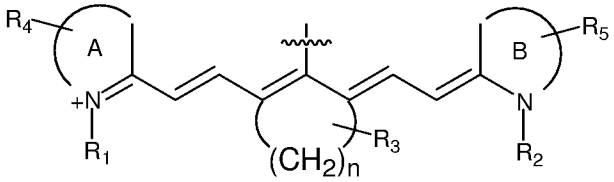


wherein

Z is a nucleotide derivative;

L is a linker having a chain length of at least 8 atoms; and

Cy is a cyanine dye of the formula:



wherein

A and B are each independently the atoms necessary to form a cyanine nuclei;

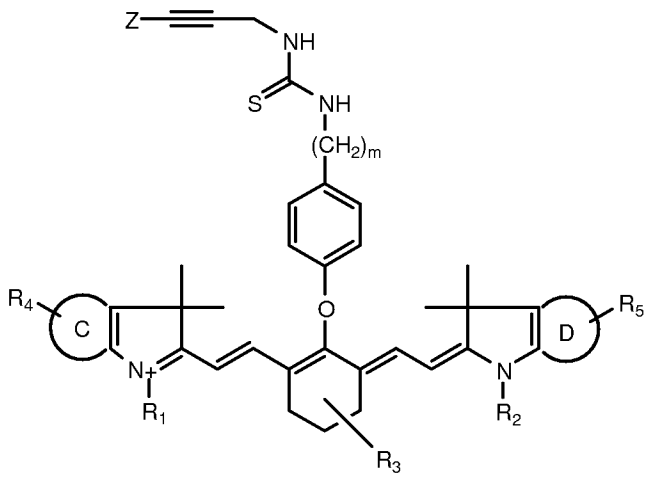
R_1 and R_2 are each independently C_1-C_6 alkyl;

R_3 is hydrogen, or C_1-C_4 alkyl;

R_4 and R_5 are each independently selected from the group consisting of H and SO_3^-; and

n is 2, 3, or 4.

14. (Original) A compound according to Claim 13 of the formula:



wherein:

C and D represent ring structures with sufficient carbon atoms to make up a benzene or naphthalene ring; and

m is an integer between and including 1-6.

15. (Original) A compound according to Claim 13 having a fluorescence maxima greater than 750 nm as measured in an aqueous solution.

16. (Original) A method of nucleic acid sequence analysis comprising:

reacting a fluorescent reporter labeled compound according to Claim 1 with a first nucleic acid sequence to produce a second nucleic acid sequence labeled with the fluorescent reporter-labeled compound; and

detecting the reporter on the second nucleic acid sequence.

17. (Original) A method for determining the base sequence of DNA comprising:

providing a mixture of fluorescent reporter labeled compounds according to Claim 1 corresponding to each of the four DNA bases;

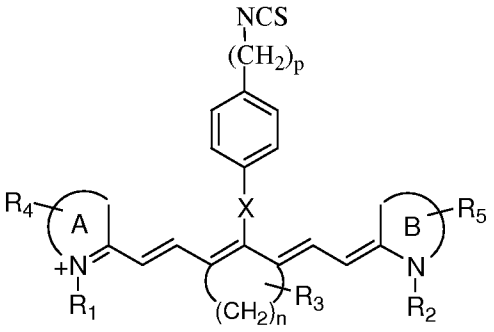
reacting a DNA template with a replication enzyme, a mixture of DNA nucleotides, and the mixture of fluorescent reporter-labeled compounds;

producing DNA fragments having a fluorescent reporter-labeled compound covalently attached to the 3'-terminal residue of each DNA fragment;

separating the fluorescent reporter-labeled DNA fragments; and

detecting the reporter for each separated fluorescent reporter-labeled DNA fragment thereby identifying the DNA sequence.

18. (Original) A compound of the formula:



wherein

A and B are each independently the atoms necessary to form a cyanine nuclei;

X is O, S, NR_9, or CR_9R_{10};

R_1 and R_2 are each independently C_1-C_6 alkyl;

R_3 is hydrogen, or C_1-C_4 alkyl;

R_4 and R_5 are each independently selected from the group consisting of H and SO_3^-, provided that at least one of R_4 and R_5 is SO_3^-;

R_9 and R_{10} are each independently H or C_1-C_4 alkyl;

p is an integer between and including 2-8; and

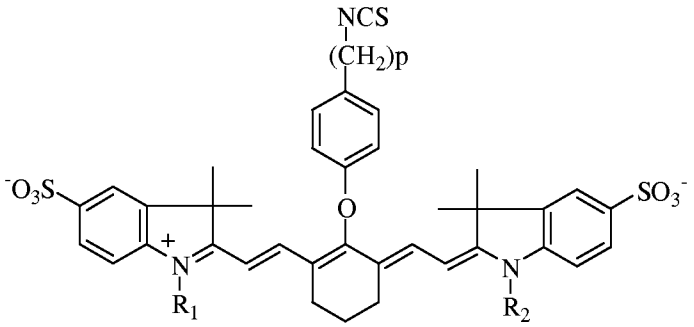
n is an integer between and including 2-4.

19. (Original) A compound according to Claim 18 wherein R_4 and R_5 are both SO_3^-.

20. (Original) A compound according to Claim 18 wherein R_1 and R_2 are both C_1-C_4 alkyl.

21. (Original) A compound according to Claim 18 wherein R_1 and R_2 are identical.

22. (Original) A compound according to Claim 18 of the formula:



~~22.~~ 23. (Currently amended) A compound according to Claim 18 of the formula: